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ABSTRACT

The problem under investigation is the testing of the value of the student teacher-cooperating teacher relationship in promoting student teacher behavioral gains and the values of careful selection of cooperating teachers. The procedure used for the sorting on the major independent variable--cooperating teacher effectiveness--was to interview the student teacher at the beginning, middle, and end of his student teaching experience. The sample consisted of 50 student teachers from the University of Utah, with cooperating teachers from the Salt Lake City metropolitan area. Statistical analysis consisted of one-way analysis of variance, a few t tests, several factor analyses, and a correlation analysis. The data did not provide sufficient evidence to conclude that careful selection of cooperating teachers definitely pays dividends. Considering the severe limitations of the sample, the dissonant nature of the literature, and the methodology used in this study, further research is indicated, preferably conducted with random assignment to groups combined with pre- and post-testing. (MBM)

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Some Relationships Between Student Teachers' Perceptions of Cooperating Teachers and Changes in Student Teachers

Amidst the broad and in depth criticism of teacher education programs, there is one component which has escaped severe stricture. Knowledgeable persons and agencies regard this component, the student teaching or intern experience, as the most vital aspect of the teacher's preparation. The assertion comes from educators and from academicians as well.(9) Even James Conant, who has left little in teacher education unscathed, credits student teaching as the "one indisputable essential element in professional education."(4)

Although empirical support of the importance of student teaching has lagged behind the claims, there is some "soft" evidence. Questionnaire research has shown that teacher education graduates view student teaching as the best single factor in their preparation to teach.(14) Cooperating teachers have listed as their number one recommendation for teacher education programs, "more time in student teaching."(16:112) Brim,(2) reporting on the specific question of changing attitudes toward children, disclosed that ninety-five percent of teacher graduates cited laboratory experiences as "the most characteristic reason for changing attitudes toward children."

But if it is assumed that this practical experience truly makes a difference, what are the manipulative factors that can optimize positive changes in student teaching behaviors and attitudes? Previous research has indicated that the classroom cooperating teacher, moreso than the university supervisor, is the person who has the greatest influence on the student teacher.(10, 11, 15)

Related research has examined the nature and extent of the influence

that this person may exert through development of a close working relationship with the student teacher. The 1963 Association for Student Teaching Yearbook articulated the presumed importance of the rapport:

> The attitudes this teacher (the cooperating teacher) holds, the kind of receptivity he creates, the feeling he has about sharing and cooperating with this beginner will all go into establishing a climate for the student teacher . . . thus, positively or negatively, the supervising teacher establishes an atmosphere for the student teacher.(1:129)

Sorenson and Halpert(13) in a study of discomfort of student teachers during their assignment, similary concluded that "whether the apprehension which most prospective teachers experience in the early stages of practice teaching is quickly overcome or whether it persists will be determined in part by the relationship between candidate and supervising (cooperating) teacher."(13:32)

This finding is consistent with that of Curtis and Andrews,(5) who stated that when a team relationship between cooperating teacher and student teacher is carefully promoted, the distance between them will lessen rapidly and emotional tensions will evaporate. Goodlad,(7) summarized that a consensus of opinion does exist on the extent to which the cooperating teacher significantly molds the attitudes and methods of the student teacher.

Contemporary writers have logically inferred from these bits of evidence that student teachers be placed only in the most outstanding schools and only with the most able cooperating teachers.(3,5) They have cited evidence such as that provided by Price,(12) who discovered that attitudes of student teachers changed considerably after their teaching experience and that these changes tended to be in the direction of the attitudes

held by the classroom teacher with whom they worked. They have also cited Stoller,[10] who concluded that neither the method of supervision nor the particular supervisor has as differential an impact on the student teacher as does the combination of cooperating teacher and cooperating class. Similarly, Lipscomb,[10] explicitly stated that the superior cooperating teachers show significantly greater influence on student teachers' attitudes than do below average cooperating teachers.

Hence, in reviewing the available research and commentaries, one is left with the distinct impression that: (1) student teaching is vital; (2) classroom cooperating teachers are the persons most likely to change student teacher behaviors, presuming that they can establish a close working relationship with the student teacher; and, (3) for that reason, only suitable models should serve as cooperating teachers. The problem under investigation in this paper is the testing of the value of the student teacher-cooperating teacher relationship in promoting student teacher behavioral gains and the value of careful selection of cooperating teachers.

Problems and Delimitations

Unfortunately, it is probably necessary that these two--development of rapport and excellence as a cooperating teacher--go hand and hand. That is, the literature implies that rapport is of little use, in fact, may even be detrimental if the cooperating teacher is not a suitable model. Hence, experimentally, the problem is clouded by the need to identify cooperating teachers who are both suitable models and who can establish close working relationships.

In the matter of identifying close working relationships, it would appear obvious that the student teacher is the best judge since he is a partner in the relationship and since it is his behavior, hopefully,

that is affected. But in selecting suitable models the issue is more confusing.

The problem becomes defining suitable models and selecting them. Whether one chooses to accept the "most able" term of Brink and Curtis and Andrews or Lipscomb's "superior cooperating teacher," the issues remains. What is a suitable model? To be sure, researchers have composed lengthly lists of traits of "good teachers" but there remains a near total lack of consensus among educators as to the validity of any list.

Faculty and supervisors of teacher education programs would probably assume that they are the best judges and a Director of Student Teaching would probably begin with their opinions. It is true that these individuals probably have the broadest view of available cooperating teachers. At the same time the depth of their knowledge about individual teachers is most likely superficial.

There are at least two additional problems that arise if cooperating teachers are to be selected in this manner. First, university faculty members are external judges; that is, they can only <u>think</u> they know who and what is best for a student teacher. Second there is the usual question of reliability. A consensus among university faculty members can be difficult to reach on such matters. On the other hand, who else has the proper context on which to base such judgments? Who else has observed cooperating teachers to any extent? (And from a political point of view, student teacher selection of cooperating teachers may be difficult at best.)

In many respects it may be successfully argued that external judges must be used. In this study, however, the problems involved in synthesizing a joint index were insurmountable. Student teacher and supervisor ratings of cooperating teacher correlated at -.24. Their assessments of student

teacher-cooperating teacher rapport correlated at .18. Hence, since a single judge appeared to be the feasible approach and since the efficacy of student teacher judgments in identifying close working relationships appeared obvious, external observers were not used.

The additional reasons for selecting student teachers rather than external persons have to do with perceptions. Student teachers are the persons affected by the cooperating teachers and it is their perception of whether or not a cooperating teacher is effective that is going to bear upon the student teacher's behavior and attitudes. It matters little what others think of the cooperating teacher; the student teacher is the concerned individual. It is his perceptions of a cooperating teacher that will affect him, regardless of the good intentions of the cooperating teacher. The theoretical basis of the importance of perceptions comes most directly from the related area of educational supervision. Griffiths summarizes the research thusly:(8:52-56)

> It is not open to debate . . . This perceptual difference is the fundamental cause of human relations problems. Reality is to us what we perceive it to be and we will base our actions . . . on what we perceive to be the case.

Another problem is overcome because the student teacher is the only judge and, therefore, reliability is unity. To be sure, the student teacher does not have a frame of reference for making judgments; he has only his perceptions of the cooperating teacher. Nevertheless he is probably the best judge since it is his experience that is affected. Further, he has a prolonged and in-depth contact with the cooperating teacher; external judges would be forced to make judgments on the basis of relatively few observations.

Therefore, the procedure used for the sorting on the major independent variable--cooperating teacher effectiveness--was to interview the

student teaching at the beginning, in the middle, and at the end of his student teaching experience. This procedure usually established consistent ratings but in a few cases where student perceptions changed over time an average rating was taken. This involved no more than three or four of the fifty subjects.

The specific questions asked in the interview were: "Indicate on a scale of one to nine how you would rate your cooperating teacher IN COMPARISON TO WHAT YOU KNOW OR ASSUME TO BE THE RELATIONSHIP OF OTHER STUDENT TEACHERS WITH THEIR COOPERATING TEACHERS."

There are several conclusions which can be made about the criteria upon which student teachers made their ratings. The data for these generalizations comes from an interview at the end of the quarter in which the student teachers were asked to comment at length about their cooperating teachers. High group, cooperating teachers were characteristically described as warm and friendly individuals. They were typically well liked by their students and demonstrated an interest both in them and in the student teacher. They might or might not have allowed the student teacher total freedom in choosing what and how to teach, nor was there any consistent behavior in terms of giving student teachers constructive criticism and feedback. Some student teachers felt they received enough feedback; others did not. Some wanted total freedom; others would have liked more guidance. But in no way did this seem to affect the student teacher's rating of their cooperating teacher.

Cooperating teachers in the low category, as a group, were also inconsistent in whether they allowed freedom and gave feedback although more generally they did not give any feedback and they were usually quite

authoritarian. But the clear behavior pattern as perceived by the student teachers was that they were not well-liked by their students, did not like teaching, did not like their students, and most important, they were not interested in their student teachers. They lacked human warmth and concern.

Sorting in this manner would appear, however, to lead to a major difficulty through a biasing of the data. One would suspect that the opinions of student teachers toward cooperating teachers would in some way reflect the capabilities and performances of the student teachers themselves. Specifically, one would expect that a student teacher might assess a cooperating teacher as "unsuitable" if they had had an unpleasant experience during the quarter, but an experience that might well be due more to their own ineptitude than to any fault of the cooperating teacher. There was some evidence that such a biasing did not occur.

Population and Methodology

The sample consisted of fifty, randomly selected and assigned (assignment to groups on the basis of the independent variable was, of course, not random at all) secondary applicants to winter quarter, 1969, student teaching at the University of Utah. Cooperating teachers were drawn from a pool of over one thousand teachers in the Salt Lake City Metropolitan Area. Student teacher perceptions of cooperating teachers divided naturally and neatly into three categories which were labeled for ease of identification: high--those student teachers who assigned a rating of either eight or nine (nine point scale) to their cooperating teachers; middle--those student teachers who rated their cooperating teachers seven on the scale; and, low--those student teachers who rated their cooperating teachers below seven.

Although the attempt was to force discriminations, (the instructions asked on the student teacher to rate his cooperating teacher on a comparative basis), forty-five of the student teacher participants rated their cooperating teachers above five and twenty-nine rated their cooperating teachers either eight or nine. The mean rating was 7.7. This implies a general satisfaction with the quality of cooperating teachers but probably reflects to a greater degree, satisfaction with the overall student teacher experience.

Dependent variables considered were: the Minnesota Teachers' Attitude Inventory, Time Budget Analysis, Flander's Technique of Interaction Analysis, and post hoc ratings by cooperating teachers, university supervisors, and the student teachers themselves. The rating sheets were factor analyzed to reduce the number of variables for ease of interpretation.

Presentation of Data

Statistical analysis consisted of both one way analysis of variance among the three groups and a few simple t tests contrasting the two extreme groups. There were also several factor analyses and a correlation analysis. Assumptions for the ANOVA are independence within and between groups, normality of average, and equal variances. The same assumptions hold for the t tests with the ratio of variances $<2:1$. The t tests were ex post facto improvisations which were conducted on a few dependent variables in cases where the pattern of mean scores appeared unusual. A correlation matrix was also developed for all variables.

Table 1 presents MTAI mean scores and standard deviations for the three groups. Note the apparent linear relationship between student teacher assessment of their cooperating teacher and change in attitude. Observed mean scores would suggest that student teacher attitudes improved in

inverse relationship to the perceived "quality" of the cooperating teacher. This would appear to be in conflict with the suggestions of the literature which argued for selection of only the "best" cooperating teachers. Although the F value is slightly below the rejection region (see Table 2), the t values of 2.00 suggests rejection of the null hypothesis for a two tailed t test at the .05 level. (The t test contrasted means of extreme groups).

Insert Table 1 approximately here

MTAI pre and post test means are not significantly different as is shown in Table 2. This observation indicates that ratings of cooperating teachers are not necessarily related to student teacher MTAI scores and that at least as far as MTAI scores are concerned the sample is not biased after all.

Insert Table 2 approximately here

The time budget analysis revealed that those assessed as the better cooperating teachers spent more time with their student teachers than did the "poorest" cooperating teachers (see Table 2). By the end of the quarter, however, the difference had been reduced to a value which was not significantly different among the three groups.

Insert Table 3 approximately here

TABLE 1

MEANS AND STANDARD DEVIATION FOR THE
MTAI PRE TEST, POST TEST, AND CHANGE IN MTAI SCORES
AS A FUNCTION OF STUDENT TEACHER RATING OF THEIR COOPERATING TEACHERS

GROUPS OF COOPERATING TEACHERS ACCORDING TO STUDENT TEACHER RATINGS		PRE-MTAI	POST-MTAI	CHANGE IN MTAI SCORE
LOW	$\bar{X}$	42.2	60.8	18.6
	S.D.	22.1	19.1	24.2
MIDDLE	$\bar{X}$	46.1	52.6	6.5
	S.D.	19.6	29.1	21.4
HIGH	$\bar{X}$	56.3	56.1	.3
	S.D.	28.3	36.8	22.3

$t = 2.00$
The point estimate is a difference of 18.3 raw points.
The confidence interval is $.4 \leq \mu \leq 36.2$.

TABLE 2

THE COMPLETE ANOVA TABLE FOR ALL VARIABLES

VARIABLE		F(2, 47)	MEAN SQ.	P LESS THAN
MTAI PRE		1.383	898.101	.261
MTAI POST		.162	172.680	.851
MTAI CHANGE		2.295	1159.125	.112
TIME BUDGET ANALYSIS TRIAL 1		4.075	1954.360	.023
TIME BUDGET ANALYSIS TRIAL 2		3.299	1254.722	.046
TIME BUDGET ANALYSIS TRIAL 3		1.202	642.077	.310
INTERACTION ANALYSIS TRIAL 3	DIRECT INFLUENCE	1.322	1314.508	.276
	INDIRECT INFLUENCE	2.653	6786.507	.081
	STUDENT TALK	1.908	2340.637	.160
COOP. TEACHER QUEST.	FACTOR 1	.237	5.003	.790
	FACTOR 2	1.480	31.903	.238
STUDENT TEACHER QUEST.	FACTOR 1	6.599	103.438	.003
	FACTOR 2	20.794	292.954	.001
	FACTOR 3	4.219	77.308	.021
SUPERV. TEACHER QUEST.	FACTOR 1	.420	9.529	.660
	FACTOR 2	1.252	25.915	.295

COOPERATING TEACHER QUESTIONNAIRE	FACTOR 1	Assessment of Student Teacher
	FACTOR 2	Change in Student Teacher
STUDENT TEACHER QUESTIONNAIRE	FACTOR 1	Evaluation of Experience and Desire to Teach at the End of the Quarter
	FACTOR 2	Evaluation of Cooperating Teacher
	FACTOR 3	Desire to Teach at the Beginning
SUPERVISING TEACHER QUESTIONNAIRE	FACTOR 1	Assessment of Cooperating Teacher-Student Teacher Relationship
	FACTOR 2	Assessment of Change in Student Teacher, Desire to Teach, and Rating of Student Teacher

TABLE 3

MEANS AND STANDARD DEVIATION FOR THE
TIME BUDGET ANALYSIS
AS A FUNCTION OF STUDENT TEACHER RATING OF THEIR COOPERATING TEACHERS

GROUPS OF COOPERATING TEACHERS ACCORDING TO STUDENT TEACHER RATINGS		TIME 1	TIME 2	TIME 3
LOW	$\bar{X}$	13.556	8.889	17.222
	S.D.	9.275	9.880	18.040
MIDDLE	$\bar{X}$	34.500	23.167	32.417
	S.D.	18.451	17.424	32.140
HIGH	$\bar{X}$	37.172	28.000	28.724
	S.D.	25.431	22.165	19.946

F values are 4.075, 3.299, and 1.202 respectively.
See Table 2 for probability values.

Figures are time in minutes spent by the student teacher with his cooperating teacher.

The interaction analysis findings would appear to be mixed except that the only significant t value occurred in the case of the indirect influence where student teacher behavior followed the theory of the literature review. That is, student teachers in the "low" group exhibited less indirect influence than student teachers in the "high" group.

Insert Table 4 approximately here

At the end of the quarter, a rating scheme was administered to cooperating teachers, student teachers, and university supervisors. The instruments, of about fifteen items each, were factor analyzed in order to reduce the number of variables for meaningful interpretation. Factor loadings were unusually high, being in the range of .88 to .98. Table 2 shows that neither the cooperating teacher nor university supervisor assessments, as a function of the sorting on the independent variables, were significantly different.

Insert Table 5 approximately here

Perhaps the most interesting aspect of the data relating to these three rating schemes was observed in the correlation matrix; the ratings of the student teachers by the university supervisors were correlated only very slightly with ratings by the cooperating teacher ($r = .068$). Other correlations were likewise small with the highest positive correlation between the instruments being only .22.

TABLE 4

MEANS AND STANDARD DEVIATION FOR THE
INTERACTION ANALYSIS, TRIAL 3,
AS A FUNCTION OF STUDENT TEACHER RATING OF THEIR COOPERATING TEACHERS

GROUPS OF COOPERATING TEACHERS ACCORDING TO STUDENT TEACHER RATINGS		DIRECT INFLUENCE	INDIRECT INFLUENCE	STUDENT TALK
LOW	$\bar{X}$	92.222	87.111	104.889
	S.D.	25.263	28.260	24.333
MIDDLE	$\bar{X}$	75.000	127.333	81.667
	S.D.	20.538	40.080	29.274
HIGH	$\bar{X}$	72.862	130.862	79.103
	S.D.	36.340	58.610	39.412

t = 2.05
The point estimate is a difference of 43.6 tallies.
The confidence interval is $3.9 \leq M \leq 83.3$.

TABLE 5

MEANS AND STANDARD DEVIATION FOR THE
COOPERATING TEACHER, STUDENT TEACHER, AND UNIVERSITY SUPERVISOR QUESTIONNAIRE
AS A FUNCTION OF STUDENT TEACHER RATING OF THEIR COOPERATING TEACHERS

GROUPS OF COOPERATING TEACHERS ACCORDING TO STUDENT TEACHER RATINGS		COOPERATING TEACHER QUESTIONNAIRE		STUDENT TEACHER QUESTIONNAIRE			UNIVERSITY SUPERVISOR QUESTIONNAIRE	
		Factor 1 (Assessment of Student Teacher)	Factor 2 (Change in Student Teacher)	Factor 1 (Evaluation of Experience and Desire to Teach at the End of the Quarter)	Factor 2 (Evaluation of Cooperating Teacher)	Factor 3* (Desire to Teach at Beginning of Quarter)	Factor 1 (Assessment of Student Teacher-Cooperating Teacher Relationship)	Factor 2 (Assessment of Student Teacher)
LOW	$\bar{X}$	50.037	48.452	46.394	43.627	45.669	48.538	48.543
	S.D.	3.039	4.373	4.871	5.447	3.873	5.533	5.502
MIDDLE	$\bar{X}$	51.377	51.833	49.702	49.330	50.777	49.777	49.442
	S.D.	4.950	4.982	2.584	3.218	5.211	4.725	3.685
HIGH	$\bar{X}$	51.054	51.026	51.801	52.748	49.883	50.203	51.036
	S.D.	4.819	4.578	4.112	3.332	3.976	4.539	4.557

*On this factor the high score represents a poor desire.

Factor scores have been standardized with a mean of 50.0 and a standard deviation of 5.0.

In summary, MTAI findings favored students who gave their cooperating teachers low ratings while interaction analysis findings favored the high group. The remainder of the instruments favored neither group in any clear fashion.

Findings and Conclusions

The fact that the data generally fit no set pattern implies a basis for challenging the major hypothesis of the literature. Certainly there is not sufficient evidence to conclude that careful selection of cooperating teachers definitely pays dividends. Depending upon the criterion, one might even argue that it is productive to select only the "poor" cooperating teachers.

Witness, for example, the changes in MTAI scores which are easily the most interesting findings about which to hypothesize. The research done by the late Walter Cook and his associates at the University of Minnesota(6) demonstrated that it is common for student teacher attitudes toward teaching and children to remain unchanged or to become more negative during the student teaching experience. Cook concluded that somehow the school milieu socializes the student teacher. Student teachers enter the schools full of vigor and enthusiasm; they have not yet learned that their task is "unmanageable." But they are soon confronted with the realities of teaching five or six classes per day, monotoring athletic contests, selling lunch tickets, and finding out how little their beginning salary will provide.

One might easily argue that the individual having the greatest opportunity to socialize the student teacher, the cooperating teacher, is the culprit. The data support this notion although in no group was there a mean decline

in MTAI scores. Note that the student teachers who assessed their cooperationg teachers in the bottom group had the greatest positive attitude change. Also remember from the time budget analysis that these individuals spent the least amount of time with their cooperating teachers. Data from the final interview were consistent, with the clearest and most unmistakable message gained from this source being that these student teachers (in the low group) were so horrified at the inhuman treatment given by cooperating teachers to students that they almost totally rebelled. They sided with the students and, apparently in an attempt to compensate for the behaviors of their cooperating teachers, became more friendly and warm in their dealings with students. On the other hand, if we examine the data for the group of student teachers who rated their cooperating teachers high, we are given the clear impression that these student teachers strongly identified with their cooperating teachers. They observed that their cooperating teachers got along well with their students and were generally effective teachers. As such, these cooperating teachers were able to socialize the student teachers; they were able to convince student teacher that "although teaching is enjoyable there are many, many irritating problems about school and children." The Minnesota Teacher Attitude Inventory, time budget analysis, and the interview data give this distinct impression.

Although the interaction analysis data are more difficult to interpret, there is a consistent explanation. Student teachers in the "low group" showed less of the desirable indirect behavior. This is probably due to the fact that they were not provided with (teacher) models who demonstrated this kind of behavior. Student teachers in the "high group" did have such models and probably learned through imitation of the models. Hence, this finding, unlike those above, would support careful selection of cooperating

teachers.

The questionnaires obtained from the cooperating teachers, the student teachers, and university supervisors at the end of the quarter, provide little information of a directional nature concerning the major question of this study. However, the fact that neither cooperating teachers nor university supervisors were able to identify superior performances by student teachers in any particular group implies that careful selection neither aids nor detracts from the performances of student teachers; at least these individuals were not able to identify superior behavior changes on the part of student teachers in any group. The low correlations between cooperating teacher and supervisor ratings likewise do not speak well for the reliability of ratings of student teacher performance.

Inferences

Considering the severe limitations of the sample, the dissonant nature of the literature, and the methodology used in this study, further research is indicated. It would be ideal if a study such as this could be conducted in the classical fashion with random assignment to groups along with pre and post testing. The precise nature cf the problem under investigation here did not allow for this design since categorization was on the basis of student teacher perceptions. Yet, to the investigators of this study, the synthesis of the total data obtained paint one of the most distinct pictures in our research experience. Seldom have we found such consistency of data from the various instruments supported by such distinct impressions from the interviews. For our own part, it will take considerable pressure before we will be willing to expend the substantial efforts necessary for the careful

selection of cooperating teachers. Yet we admit that we are not quite ready to advocate selection of the incompetent cooperating teacher.

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